

Weekly Report

25/06/2019 – 30/06/2019

Last week, I had presented my idea to Junhua, he said that the idea might be workable. I offer the use of the filming and video editing theory [1] for speed adjustment. To present data visualization with semi-auto speed suggestion, I will adopt the Fabula duration (FD), Syuzhet duration (SYD), and screen duration (SCD) to calculate the slow/fast motion or single shot (constant speed).

Moreover, these three attributes also can use for deciding ellipsis and repeated action. I will extract the time series visualization (based on data) as the Fabula (each Fabula come with the duration as time, i.e., FD). Then let users give us the screen duration they want (e.g. 2 mins, this will be used as SCD). Then let users give us the Syuzhet and each Syuzhet duration, i.e., SYD. Let users move the Fabula(s) into each Syuzhet. From the Fabula duration versus Syuzhet duration formula (e.g. $FD = SYD = SCD$, $FD > SYD$ and $SYD = SCD$, $FD = SYD$ and both FD and $SYD > SCD$, $FD < SYD$ and $SYD = SCD$, $FD = SYD$ and both SYD and $FD < SCD$), it can determine the speed, ellipsis and repeated action.

Anyway, Junhua said this just a contribution for the speed setting. He let me think about more contributions. I try to think about the way to auto or semi-auto preset of Syuzhet and zooming. I have talked to my friends who are a film editor, they said may I should consider about the angel of the camera, it may help the user to understand the data visualization base on more movement just only the speed and zooming. So now I move on the searching about the way to narrate the story [2] (yes we have story order, but we have a narrative story in the same direction of story order).

Moreover, I try to match these ordering events that present in the paper "Ordering events in interactive fiction narratives" [3]. Anyway, I've talked with friends; they said they think, in the narrative order it contains many types of ordering events but the data visualization like Hans' work the narrative order should be/have to be the same direction with story order.

Even I move to think about the zooming; it still needs to be based on the narrative order (the way to tell the story). So I think I will focus on how to narrate the story order for a couple of days. If I can't find at least the semi-auto narrate, I will keep the way that let the user give us the narrate based on the script that user want to tell their story.

[1] Film and Video Editing Theory 1st Edition by Michael Frierson

[2] Kim, N. W., Bach, B., Im, H., Schriber, S., Gross, M., & Pfister, H. (2018). Visualizing Nonlinear Narratives with Story Curves. *IEEE Transactions on Visualization and Computer Graphics*, 24(1), 595–604. <https://doi.org/10.1109/TVCG.2017.2744118>

[3] Montfort, N. (2007). Ordering events in interactive fiction narratives. In *Proceedings of the AAAI Fall Symposium on Intelligent Narrative Technologies* (pp. 87-94).